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November 7, 2003

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VIA ELECTRONIC FILING

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

**RE: In the Matter of Improving Public Safety
Communications in the 800 MHz Band
WT Docket No. 02-55
Ex Parte Presentation**

Dear Ms. Dortch:

The Commission is considering approaches to reduce or eliminate Commercial Mobile Radio Service (CMRS) system interference to public safety and other non-cellularized licensees in the 800 MHz band. One of the proposals receiving serious consideration, the "Consensus Plan", is founded on the principal that interference resolution requires bifurcating the band into two discrete segments: the lower portion would be populated by traditional, high-site, high-power systems that have demonstrated an ability to co-exist compatibly, while cellularized systems with interference potential would be relocated to the portion of the band above 861 MHz.

For the most part, the debate about this approach to interference resolution has assumed that Nextel Communications, Inc. ("Nextel") is the only incumbent whose operations would need to be moved out of the spectrum below 861 MHz. However, as detailed in the attached filing, both Airtel Wireless LLC ("Airtel") and Nevada Wireless LLC ("Nevada Wireless") (collectively "Harmony Operators") have deployed Motorola's Harmony system, an 800 MHz integrated wireless system that is a micro-digital derivative of the iDEN network operated by Nextel, in their respective markets. The Harmony network is consistent with the Consensus Plan definition of a "cellularized" system and already has exhibited the potential for causing interference to systems operating on interleaved channels, including public safety operations, that is the basis for the recommended band plan.

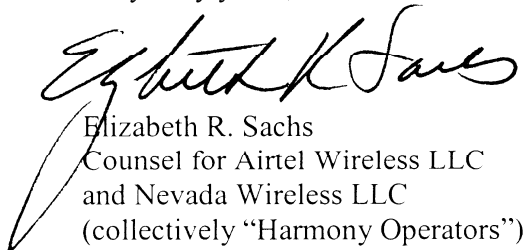
The Harmony Operators wish to confirm that, if the FCC adopts the Consensus Plan or any plan that segregates cellularized from non-cellularized operations, their systems will be assigned to the

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correct portion of the band, away from the public safety systems with which they otherwise might interfere.

Kindly refer any questions or correspondence regarding this matter to the undersigned.

Very truly yours,



Elizabeth R. Sachs
Counsel for Airtel Wireless LLC
and Nevada Wireless LLC
(collectively "Harmony Operators")

cc: Bryan Tramont, Chief of Staff, Office of Chairman Powell
Sheryl J. Wilkerson, Legal Advisor, Office of Chairman Powell
Jennifer Manner, Senior Counsel, Office of Commissioner Abernathy
Paul Margie, Spectrum and International Legal Advisor, Office of Commissioner Copps
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AIRTEL WIRELESS LLC AND NEVADA WIRELESS LLC

Ex Parte Presentation

In the Matter of Improving Public Safety Communications in the 800 MHz Band

WT Docket No. 02-55

November 7, 2003

The FCC has described its primary objective in WT Docket No. 02-55 as “improving the spectrum environment for public safety operations in the 800 MHz band.”¹ The record in the proceeding identifies instances in which public safety systems have experienced interference caused by the operation of one or more Commercial Mobile Radio Service (CMRS) licensee(s). In general, the problem appears to arise when systems employing a cellularized system architecture operate in geographic and spectrum proximity to entities operating more traditional high-site, high-power facilities.²

Several solutions to this interference problem have been proposed to the FCC. The “Consensus Plan” represents the joint recommendation of Nextel Communications, Inc. (“Nextel”), whose cellular-like iDEN network operates on channels both adjacent to and interleaved with public safety spectrum and is acknowledged to be a causative factor in many of the interference problems, a number of organizations representing the public safety community, and the Private Wireless Coalition comprised of several private land mobile associations (collectively, the “Joint Commenters” or “Consensus Parties”). The basic premise of the Consensus Plan is that the interference problem cannot be resolved if systems with fundamentally different architectures continue to share the band. It recommends that the 800 MHz band be realigned into two separate, contiguous blocks of spectrum: the block at 806-816/851-861 MHz (“Lower 800 MHz Band”) would be reserved for non-cellularized system architecture and the block at 816-824/861-869 MHz (“Upper 800 MHz Band”) would be allocated for cellular-like system architecture.

The debate about the Consensus Plan and other 800 MHz solutions has assumed, for the most part, that Nextel would be the only incumbent whose operation would be moved to the Upper 800 MHz Band.³ However, as detailed below, both Airtel Wireless LLC (“Airtel”) and

¹ WT Docket No. 02-55, *Notice of Proposed Rule Making*, 17 FCC Rcd 4873 at ¶ 3 (2002) (“NPR”).

² Such systems are defined generally in the NPR as those “employing multiple low power base stations, automated handoff and frequency re-use.” NPR at ¶ 11.

³ Although Southern LINC operates an extensive iDEN network throughout much of the Southeast that meets the definition of a cellularized system, the record in this proceeding indicates that its operation has not caused interference to public safety operations and that Southern LINC wishes to continue operating on its Lower 800 MHz Band spectrum. The

Nevada Wireless LLC (“Nevada Wireless”) (collectively “Harmony Operators”) have deployed Motorola’s Harmony system, an 800 MHz integrated wireless system that is a micro-digital derivative of the Nextel and Southern LINC iDEN networks, in their respective markets. Airtel operates in several of the larger cities in the State of Montana and intends to build-out other population centers within the State. Nevada Wireless has a fully operational Harmony system in Reno, Nevada and is in the process of deploying Harmony networks in a number of other markets.

The Harmony network is consistent with the Consensus Plan definition of a cellularized system and already has exhibited the potential for causing interference to systems operating on interleaved channels, including public safety operations, that is the basis for the recommended band plan. Therefore, the Harmony Operators wish to confirm that if the FCC adopts the Consensus Plan, or any alternative approach that segregates cellular-like from non-cellularized operations, their Harmony systems will be assigned to the Upper 800 MHz band, away from the public safety systems with which they otherwise might interfere.

I. DESCRIPTION OF THE HARMONY NETWORK.

Motorola characterizes the Harmony network as an integrated, digital wireless system offering the voice communications capabilities of dispatch and telephone interconnect services. It is a derivative of the iDEN network deployed by Nextel and Southern LINC and uses the same base stations and subscriber units, although the network switch is smaller and less feature-rich.

The Harmony and iDEN technologies share certain characteristics, but differ in other respects. Harmony was developed initially for use by private licensees to meet their internal communications requirements. The Harmony Operators are the only two domestic licensees using the Harmony network to provide a third party, commercial service. The smaller-scale switch has fundamental limitations that preclude Harmony from offering some of the more advanced features and functionalities available on the iDEN network. The system was designed, and has been deployed by the Harmony Operators, as a business-to-business tool rather than a wireless telephone network for the consumer market

However, the Harmony network architecture basically mirrors the iDEN architecture. It supports both high-site and low-site transmitters and permits frequency reuse as well as seamless hand-off. The Harmony Operators are classified as “covered carriers” under the Commission’s rules and are subject to the regulatory obligations associated with that status.⁴ Thus, the Harmony network is a unique hybrid of cellular-like system architecture with business-, not consumer-, oriented communications capabilities.

Consensus Plan recommends that Southern LINC be granted grandfather rights to remain in that band segment. Also, as detailed below, the Consensus Plan does recognize the possibility that other licensees might migrate to the Upper 800 MHz Band under very limited circumstances. *See* Supplemental Comments of the Consensus Parties at n. 30 (filed Dec. 24, 2002).

⁴ *See*, e.g., 47 C.F.R. §§ 20.18(a)(E911) and 52.21(d)(Local Number Portability).

II. HARMONY SYSTEMS SHOULD BE MOVED TO THE UPPER 800 MHz BAND UNDER THE CONSENSUS PLAN APPROACH.

A. The Harmony Network Design Conforms to the Consensus Plan Definition of Cellular-Like Systems.

The Consensus Plan proposes to realign the 800 MHz band so that systems with incompatible architectures will no longer operate in the same spectrum. In identifying which systems should be classified as “cellular-like”, and thus moved to the Upper 800 MHz Band, the Consensus Plan recommends that systems with the following characteristics be prohibited in the Lower 800 MHz Band: (1) more than five (5) overlapping, interactive sites featuring hand-off capability; (2) sites with antenna heights of less than one hundred (100) feet above ground level on HAATs of less than five hundred (500) feet; and (3) sites with more than twenty (20) paired frequencies.⁵

The definition was developed by parties to the Consensus Plan in a good faith effort to distinguish systems with interference potential from those that can co-exist compatibly, based on the then-available information extrapolated from systems operating in the band. The defining system features are not themselves causative of interference, either individually or collectively. Rather, they are an attempt to capture the characteristics of a cellular-like system while allowing private land mobile users with more traditional multi-site, multi-frequency facilities to remain in the non-cellularized portion of the band.

Of course, the Consensus Plan necessarily defines systems at a particular moment in time. Therefore, it also acknowledges that licensees in the future might wish to deploy cellular-type system architectures, and recommends that such proposals be considered under a rigorous waiver standard:

Consistent with the Commission’s rules and precedent, the applicant would have to demonstrate that the waiver to introduce cellular-like architecture in the non-cellular block would not contravene the underlying purpose of the non-cellular prohibition for this block; *i.e.*, that it would not create interference to incumbents and that approval of the waiver would promote the public interest. Given the serious threat that interference presents to life-safety communications, any waiver applicant should be required to demonstrate conclusively that its proposed system architecture will not recreate interference problems for public safety communications systems, including through pre-application coordination with public safety frequency coordinators and licensees in the contemplated area of operation. Any authorization which may be granted should be subject to the strict obligation to eliminate interference should it occur, including termination of operation.⁶

⁵ See Joint Commenters Reply Comments at p. 10 (filed August 7, 2002).

⁶ *Id.* at n. 41. A number of parties to the proceeding have objected to the Consensus Plan on the basis that it proposes to restrict future technological flexibility in the Lower 800 MHz Band.

It is clear that Nextel's, and Southern LINC's, iDEN networks are understood to meet the cellular definition although each company has sites that operate at greater than one hundred (100) feet and use fewer than twenty (20) paired frequencies. The systems deployed by the Harmony Operators have a similar mix of site configurations. Their iDEN-derivative networks are designed to accommodate more than five (5) interacting sites with hand-off between them and several already do. Like the Nextel and Southern LINC systems, they use a combination of high-sites and low-sites depending on the topography of the market and the coverage required, including sites of less than one hundred (100) feet. Both companies are authorized for significantly more than twenty (20) channels per market in a combination of site-specific and EA, geographic-based licenses and, like Nextel and Southern LINC, deploy their channels in response to market demand.

Unlike entities that subsequently may propose to implement a cellular-like technology knowing that such architecture is prohibited in the Lower 800 MHz Band and that a high waiver standard must be satisfied, the Harmony Operators purchased their systems and had already begun, and in one case completed, deployment before any 800 MHz band realignment had been proposed. They have acquired EA licenses auctioned by the FCC to ensure adequate capacity and coverage to justify their equipment investments. Their networks conform to the cellular definition in the Consensus Plan and should be classified as such for purposes of any future 800 MHz bandplan.

B. Harmony Networks Operating on Channels Interleaved with Public Safety Systems Have Interference Potential.

The wisdom of classifying the Harmony Operators as cellular-like at the outset is confirmed by the fact that there already have been limited instances of interference between Nevada Wireless' facilities in Reno and public safety systems operating on adjacent channels.⁷ Systems operated by Washoe County and the State of Nevada Department of Transportation ("DOT") both experienced significant receiver desense when Nevada Wireless initiated operation on sites in proximity to their operations. Fortunately, the problem and its cause were identified promptly and Nevada Wireless took immediate remedial action by taking the offending channels out of operation in those areas.

Because Nevada Wireless currently has only thirteen (13) channels in Reno that are adjacent to public safety frequencies, and because it has localized management that has regular dealings with local government entities in the market, it has been able to modify its channel plan to avoid current service problems. However, both Nevada Wireless and the DOT are in the process of building out statewide 800 MHz networks. The interference problem will become substantially more difficult to manage as their respective networks are deployed. As other state and local government entities migrate to 800 MHz systems in the same rural areas in which the Harmony Operators will be implementing their networks, the interference potential will increase

⁷ To the best of Airtel's knowledge, no 800 MHz public safety systems have been placed in operation yet in Montana.

commensurately. For all of the reasons detailed in the filings of the Joint Commenters and Nextel, ongoing coordination is not an optimal, and perhaps not a viable, long-term solution.⁸

The central tenet of the Consensus Plan is that prudent spectrum management dictates against the inter-mingling of systems with fundamentally different architectures. It has identified systems with the cellular-like characteristics specified above as posing an unacceptable interference risk for stations operating on interleaved channels. That is precisely the situation the Harmony Operators wish to avoid. It is not possible to predict with any degree of certainty in which markets they will find themselves operating on channels that are adjacent to public safety users or whether they will have an adequate channel position to remedy any ensuing problems as quickly and effectively as Nevada Wireless did in Reno. Therefore, to the extent the FCC determines to adopt a band realignment solution along the lines proposed in the Consensus Plan, the Harmony Operators' systems must be relocated to the Upper 800 MHz Band along with Nextel's iDEN network.

C. The Consensus Plan Proposal for EA Licensees Does Not Adequately Address the Requirements of the Harmony Operators.

The Consensus Plan does recognize that special provisions will be required to ensure that EA licenses, like all 800 MHz incumbents, are not in any way disadvantaged by a band realignment. It proposes that EA licensees being moved off General Category channels will be assigned Nextel EA spectrum in another part of the Lower 800 MHz Band with comparable incumbency and contiguous channels to the extent available.⁹ However, under the Consensus Plan, a relocation to the Upper 800 MHz Band would be permitted only if there was insufficient Nextel EA spectrum in the Lower 800 MHz Band to accommodate all relocating EA licensees.

In this respect, the Consensus Plan appears to assume that EA licensees other than Nextel and Southern LINC are not operating cellular-like systems. That may be accurate for the most part. The Joint Commenters state that there are only about a dozen EA licensees other than Nextel and Southern LINC.¹⁰ Some may have constructed or may intend to build traditional analog high-site, high-power stations that will be compatible with public safety and other incumbents in the Lower 800 MHz Band. Others likely have not yet selected any technology. They now will have the benefit of knowing which system architectures will be permitted on the EA spectrum to which they will be moved based on the outcome of the instant proceeding. However, should the Harmony Operators be relocated to the Lower 800 MHz Band, they either would need to revise their business plans and replace the systems in which they have made such substantial investments or hope for waiver relief that likely would not be forthcoming given the interference to public safety that has been experienced already

⁸ Of course, should the FCC not realign the band and instead require CMRS operators to coordinate with incumbents to avoid interference problems and correct any interference that nonetheless occurs, the Harmony Operators will comply with whatever obligations are placed on them.

⁹ See n. 2 *supra*..

¹⁰ *Id.* at p. 19.

As neither result would satisfy the commitment in the Consensus Plan that all incumbents will be made “whole”, the Harmony Operators instead must be migrated to the Upper 800 MHz Band. Both companies are currently using a system architecture that is defined as cellular under the Consensus Plan definition. Both have made very substantial investments in their networks and are providing wireless service to customers in smaller markets and their rural environs. Their operations and their investments will be lost if they are moved to spectrum on which their systems are prohibited to operate.

III. CONCLUSION

For the reasons detailed herein, the Harmony Operators request the FCC to confirm that, in the event the 800 MHz band is realigned, they will be moved to the Upper 800 MHz Band.